MAGYAR KÖZTÁRSASÁG

ELSŐBBSÉGI TANÚSÍTVÁNY

Ügyszám: P0301023

A Magyar Szabadalmi Hivatal tanúsítja, hogy

GE Hungary Rt., Budapest,

Magyarországon

2003. 04. 16. napján 14666/03 iktatószám alatt,

Hidegpontelrendezés kompakt fénycsőben

című találmányt jelentett be szabadalmazásra.

Az idefűzött másolat a bejelentéssel egyidejűleg benyújtott melléklettel mindenben megegyezik.

Budapest, 2003. év 06. hó 18. napján

A kiadmány hiteléül: Szabó Emilné osztályvezető-helyettes

The Hungarian Patent Office certifies in this priority certificate that the said applicant(s) filed a patent application at the specified date under the indicated title, application number and registration number. The attached photocopy is a true copy of specification filed with the application.

Reference number: 3283

COLD SPOT ARRANGEMENT IN VBD POSITION

I. SUMMARY OF IDEA

Liquid Mercury filled CFL-s usually loose 15-20% of their light in Base Down position versus Base Up . CFL-s that are used in VBD, have to have special part that's temperature is below 45-50 degree C. This innovation describes a lamp design for self-ballasted CFL-s that can provide as high lumen output in VBD as in VBU, especially in case of high Wattage (40W+)

II. PROBLEM TO BE SOLVED

We combined known solutions together with new findings to reduce the temperature of the special lamp part inside the housing where there is a hot environment

III. PRIOR ART – CRITICAL FOR VALID PATENTS

Patent (US number: 4.549.251) is referring to a discharge lamp, that have long tip-off for stabilization of Hg pressure. This disclosure refers to a Plug-in lamp, where extra heat (from ballast) doesn't heat up the tip-off. We extended this finding to provide better cold spot in case of self ballasted lamp as well

IV. OBJECT OF INVENTION

We used extended tip-off with thin glass membrane, together with heat shield, heat conductive material, and slots on the plastic housing to get the required cold spot temperature

V. DESCRIPTION OF INVENTION

We used extended tip-off with thin (<0.1mm) glass membrane (Figure 1), together with heat shield, heat conductive material, and slots on the plastic housing to get the required cold spot temperature (Figure 2). Similar solution with bended 15mm long tip-off instead of heat conductive material, all other features such as thin glass membrane, heat shield, slots on the plastic housing. (Figure 3.)

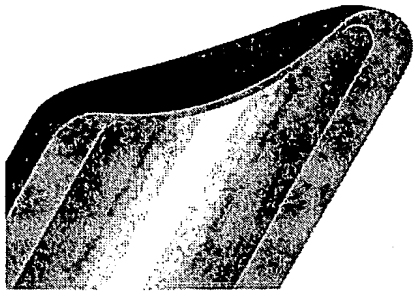


Figure 1.

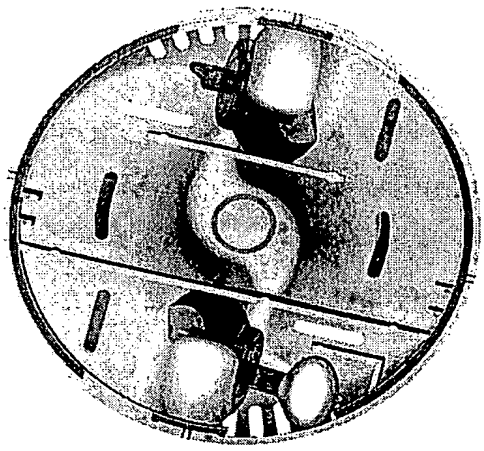


Figure 2.

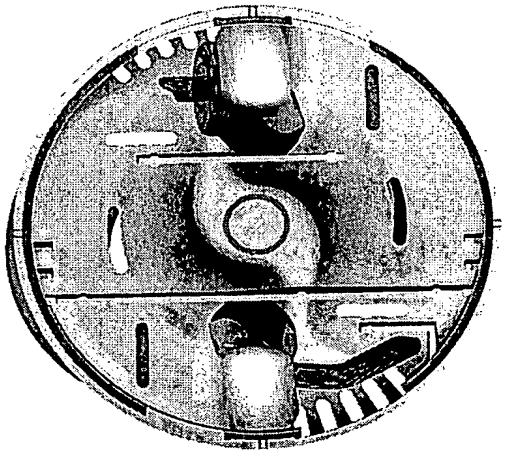
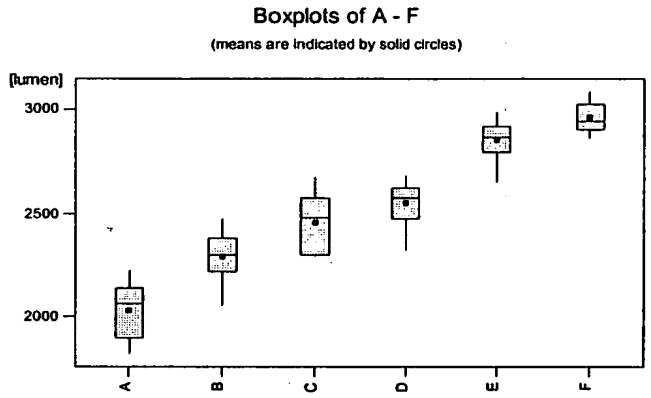


Figure 3.

VI. TEST DATA OR REDUCTION TO PRACTICE

This disclosure refers to the solutions E and F where the lumen output is the highest in base down application.



A - normal tip-off length
B - normal tip-off length with heat shield
C - long tip-off (8-10mm) with thin membrane, heat shield
D - long tip-off (8-10mm) with thin membrane, heat shield + slots on house
E - long tip-off (8-10mm) with thin membrane, heat shield heat conductive material + slots on house
F - bended tip-off (15-17mm) with thin membrane, heat shield + slots on house

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